

B. M. DAVIS.
PEANUT FEEDING MECHANISM.
APPLICATION FILED DEC. 17, 1908.

930,736.

Patented Aug. 10, 1909.
2 SHEETS—SHEET 1.

Fig. 1

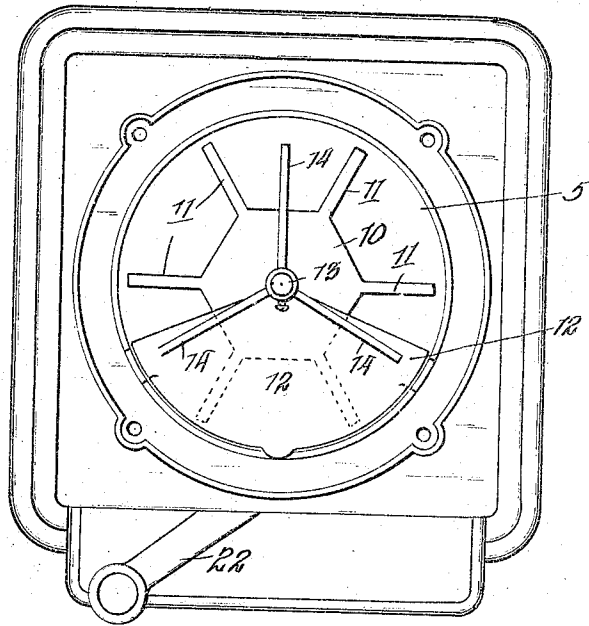
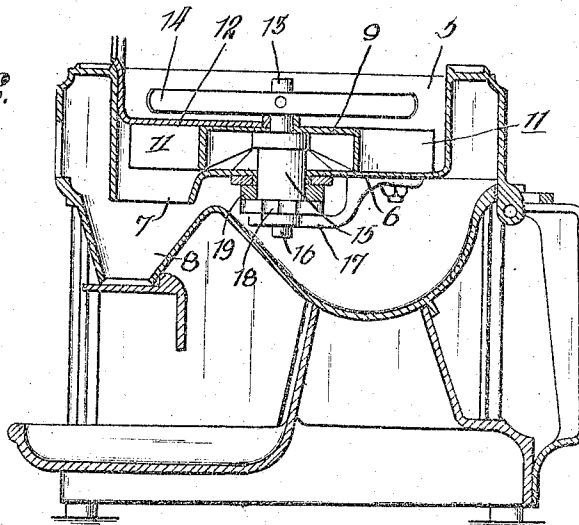


Fig. 2



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2 SHEETS—SHEET 2.

Fig. 3.

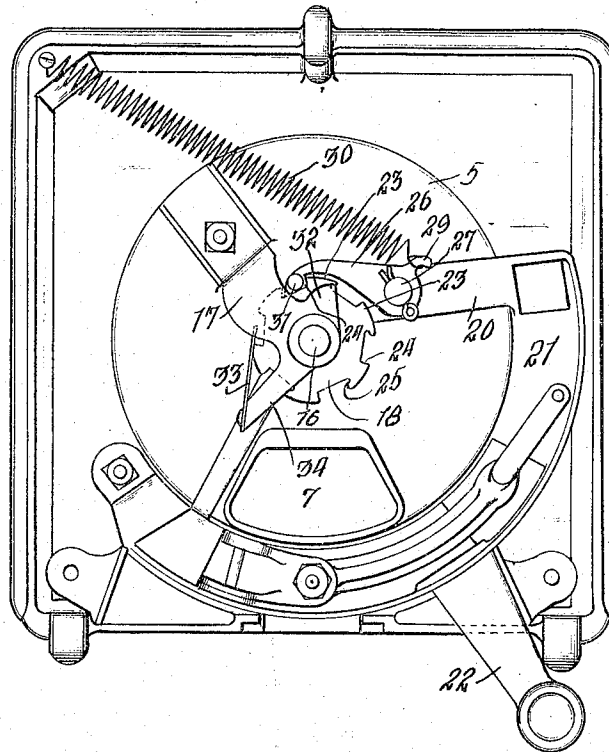
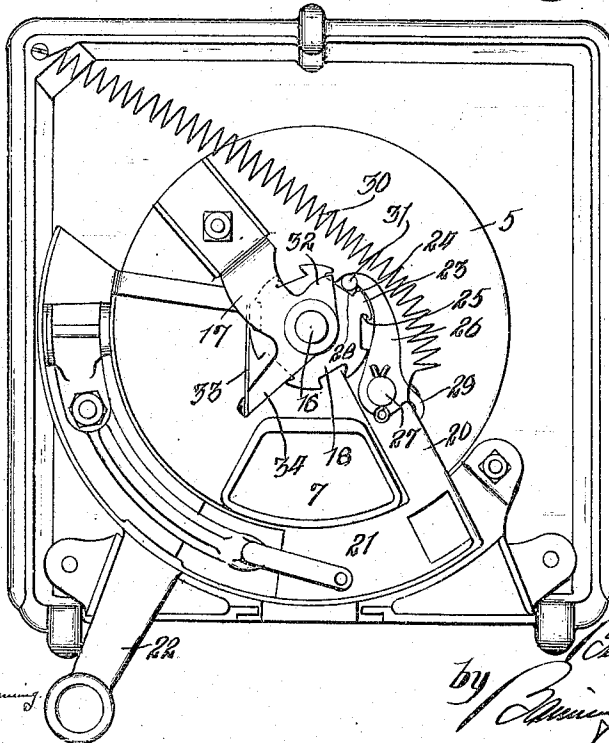


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

BETHUEL M. DAVIS, OF MORRIS, ILLINOIS, ASSIGNOR TO JOSEPH G. COLEMAN, OF CHICAGO, ILLINOIS.

PEANUT-FEEDING MECHANISM.

No. 930,736.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Original application filed July 10, 1908, Serial No. 442,873. Divided and this application filed December 17, 1908. Serial No. 467,988.

To all whom it may concern:

Be it known that I, BETHUEL M. DAVIS, a citizen of the United States, residing at Morris, in the county of Grundy and State of Illinois, have invented certain new and useful Improvements in Peanut-Feeding Mechanism, of which the following is a specification, the same being a division of application Serial No. 442,873, filed July 10, 1908.

The present invention relates to that class of vending machines which are designed to measure out and discharge peanuts or like commodities when actuated by the insertion of a coin of the proper denomination, although the present invention is not limited strictly for use in connection with coin actuated means, since the measuring devices hereinafter described might be otherwise controlled.

The object of the invention is to so construct the mechanism that it will be extremely compact and capable of being mounted within the machine at a point easy of access and adapted to facilitate the assembling of the parts.

The invention further relates to the means provided for preventing movement of the pocketed discharging wheel, save only in the manner intended, thereby guarding the machine against the stealing of peanuts.

In certain prior constructions it has been possible to manipulate the feeding mechanism without inserting a coin, by actuating said mechanism with a wire or stick inserted up through the discharge chute. The device of the present invention is provided with a suitable dog which is adapted to lock the discharging wheel against such fraudulent manipulation and at the same time permit it to be easily moved in the manner intended.

Further objects will appear from a detailed description of the invention, which consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a top or plan view of the pocketed wheel and agitator, mounted in the base of a vending machine; Fig. 2 a sectional elevation of the same, taken from front to rear of the machine; and Figs. 3 and 4 inverted plan views of the dog mechanism in two of its positions of adjustment.

The feeding mechanism is located at the base of a vending machine and occupies a cylindrical chamber 5 having a flat bottom 6 which, at its forward side, is provided with a flanged mouth 7 through which the peanuts are discharged into a chute 8. The peanuts, which are retained in a jar or similar receptacle not shown, are measured out by means of a pocketed wheel 9 which, in the form shown, comprises a hexagonal hub portion 10 provided with radiating blades 11, dividing the wheel into six pockets. Obviously, the number of pockets could be varied without changing the character of the invention. The blades terminate just inside of the cylindrical wall of the chamber, and the lower edges of the blades closely abut against the floor of the chamber, so that the floor serves as an abutment for the pockets of the feeding wheel. The chamber, immediately above the discharge mouth 7, is provided with a segmental shaped shield 12, which overlies the top of the pocketed wheel and prevents the discharge of peanuts directly through the discharge mouth from the column of peanuts in the jar or receptacle. The wheel is journaled upon a vertical revoluble shaft 13 which is provided, at its upper end, above the shield 12, with a three-bladed agitator 14 which serves to feed the peanuts toward the periphery of the chamber 5 and in position to fall into the pockets of the feeding wheel. The shaft 13 is enlarged in its center portion 15 and is journaled through the center of the floor 6 and has its lower end 16 entered through an offset bracket 17, which is bolted or otherwise rigidly secured to the floor of the chamber. The lower end of the shaft, immediately inside of the bracket 17, has mounted thereon a ratchet wheel 18 immediately inside of which is pivoted the inner end 19 of a swinging arm 20 which inwardly extends from a curved coin carrier plate 21 adapted to be moved by means of a handle 22. The coin controlled mechanism, which permits movement of the coin carrier and swinging arm, is fully described in the main application of which the present is a division, and further description at this point is deemed unnecessary.

The ratchet wheel 18 is provided with teeth 23, each of which is formed to have an actuating shoulder 24 and a stop shoulder

25. The ratchet wheel coöperates with a dog 26 which is pivoted to a pin 27 on the swinging arm, adjacent to the ratchet wheel; and the inner end 28 of the dog is inwardly hooked to lie intermediate the actuating and stop shoulders of adjacent teeth on the ratchet wheel, so that it will be impossible to move the ratchet wheel forwardly while the dog is held in engagement with the ratchet wheel. The dog is provided, on its rear side, near its pivoted end, with a hooked finger 29 which receives the inner end of a coil spring 30, the outer end of which is secured to the casing of the machine. The spring serves to throw the hooked inner end of the dog into engagement with the ratchet wheel. In order to permit the dog to ride successively over the teeth of the ratchet wheel after each forward movement of the latter, the dog is provided, near its hooked inner end, with a laterally projecting stud 31 which is adapted to engage a cam 32 on the bracket 17, which serves to throw back the hooked inner end of the dog sufficiently to permit it to clear the stop shoulder of the next tooth of the wheel and hook into the space intermediate the next succeeding pair of teeth. Retraction of the ratchet wheel is prevented by means of a flat spring 33 which is secured, at one end, to an arm 34 which outwardly extends from the bracket 17 on the side opposite to that from which the cam 32 projects. The teeth on the ratchet wheel are equal in number to the pockets of the discharging wheel, and the arm 20 is mounted to permit a swing sufficient to throw the hooked end of the dog over a single tooth on the ratchet wheel with each complete movement of the arm.

In use, with the parts in the position shown in Fig. 3, the dog will be thrown to its initial position with its hooked end in engagement with the actuating shoulder of one of the teeth on the ratchet wheel. As the handle 22 is moved, the dog will carry the ratchet wheel around a sixth of a revolution, and this movement of the ratchet wheel will be imparted to the shaft on which the pocketed feeding wheel is mounted, thereby moving one of the loaded pockets on the feeding wheel into position to discharge its load of peanuts. Thereafter, when the handle is released, the spring 30 will act to return the dog to its initial position, and as the dog moves rearwardly the stud 31 will be brought into contact with the cam 32, which causes the dog to swing back sufficiently to ride over the cam, and this movement of the dog causes its hooked inner end to clear the stop shoulder of the next succeeding tooth on the ratchet wheel, so that at the end of the stroke the dog will drop back into position to actuate the ratchet wheel with the next movement of the handle. The arrangement of the dog is one

which prevents a forward movement of the pocketed feeding wheel by the insertion of a stick or wire up through the discharge chute and into contact with the blades of the feeding wheel. If such a movement be attempted, the stop shoulder of the next adjacent ratchet tooth will be brought into abutment with the hooked end of the dog; and the stop shoulder, being slightly undercut and substantially on a dead center alignment with the pivotal mounting for the dog, will prevent the dog from being forced out of the way of the tooth, which would be the case if ordinary ratchet teeth beveled on their rear faces were employed.

What I regard as new and desire to secure by Letters Patent is:

1. In a vending machine, the combination of a casing, a feeding device mounted within the casing, a ratchet wheel for operating the feeding device, said ratchet wheel having teeth affording actuating shoulders and stop shoulders, a dog normally held between the shoulders of adjacent teeth and adapted to engage the stop shoulders and lock the feeding device against unauthorized movement, means for actuating the dog, and a cam adapted to be engaged by the dog on its return movement for causing the dog to swing back sufficiently to clear the next adjacent stop shoulder of the ratchet wheel, substantially as described.

2. In a vending machine, the combination of a rotatable feeding wheel having divisions around its periphery adapted to receive a vendible commodity, a discharge opening with which the divisions are adapted to be brought into register, a shield overlying the feeding wheel above the discharge opening, a ratchet wheel connected with the feeding wheel, a dog in engagement with said ratchet wheel, a movable member upon which the dog is mounted, the teeth on the ratchet wheel being formed to engage and lock with the dog when the ratchet wheel is moved in either direction, and means adapted to cause the dog to ride over the teeth on its return movements, substantially as described.

3. In a vending machine, the combination of a rotatable feeding wheel having divisions around its periphery adapted to receive a vendible commodity, a discharge opening with which the divisions are adapted to be brought into register, a shield overlying the feeding wheel above the discharge opening, a ratchet wheel connected with the feeding wheel, a dog in engagement with said ratchet wheel, a swinging arm upon which the dog is mounted, the teeth on the ratchet wheel being formed to engage and lock with the dog when the ratchet wheel is moved in either direction, and means adapted to cause the dog to ride over the teeth on its return movements, substantially as described.

4. In a vending machine, the combination
of a casing, a rotatable pocketed feeding
wheel mounted within the casing, a ratchet
wheel connected with the pocketed feeding
5 wheel and provided with teeth affording
actuating shoulders and stop shoulders, a
swinging arm pivoted at its inner end, a
dog pivoted to the swinging arm and having
its free end hooked to interlie the actuating
10 shoulders and stop shoulders of adjacent

teeth, and a spring connected with the dog
for holding the latter in engagement with
the ratchet wheel and for returning the
swinging arm to initial position after each
movement, substantially as described.

BETHUEL M. DAVIS.

Witnesses:

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